

must essentially be approximate, the arithmetic mean may be serviceably employed.

6. The plan upon which the prices of commodities for any year are calculated deserves attention. In the system of Mr. Sauerbeck, the values annually quoted are the averages of the twelve monthly values of the year, and, in the case of the more important commodities, the averages of the fifty-two weekly values. The values employed by the *Economist* are the quarterly prices for the standard period of 1845-50, and, for each subsequent year, the prices which existed on the 1st of January in that year; an independent series of Index Numbers is also furnished on the basis of the prices current on the 1st of each July. The scheme of Mr. Sauerbeck thus appears to be more decisive and trustworthy as being dependent, not on values which, if settled for a specified day, may be influenced by exceptional circumstances of trade and demand, but upon the values experienced throughout the whole of the year, where special excesses act as correctives to passing influences of a contrary character. It should in justice be stated, however, that an acknowledged authority in statistical inquiries has expressed the judgment that, in investigations of this nature, a collection of prices at an assigned date in each year is practically almost as valid as the average of prices current during the entire year itself. It is most improbable, he considers, that in any year the prices at the stated epoch would vary materially from the average of that year in consequence of some abnormal cause. "Upon this point judgments may rationally differ.

The difficulties and contingencies incidental to the system of Index Numbers have now been described". But, in addition, the following notes may be mentioned. The *descriptions* of some "articles are not infrequently altered in the course of time, so that confusion is possible of occurrence; constant changes also take place in the *quality* of some commodities, which thus involve an impairment of the equality of comparison; prices naturally become affected by the closer commercial contiguity of nations

which permits of more expeditious exchange between producer and consumer, and, from thus being less dependent upon the retention of stocks of goods, the markets are less liable